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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/767,716 | 01/30/2004 | Shunichi Kunihiro | 00862.023436 | 6056 |

5514 7590 01/11/2006

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NEW YORK, NY 10112

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| EXAMINER |
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UHLENHAKE, JASON S

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| ART UNIT | PAPER NUMBER |
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2853

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/767,716 | Applicant(s) KUNIHIRO, SHUNICHI | |
| | Examiner Jason Uhlenhake | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Otsuki et al (U.S. Pat. 6,527,360).

Otsuki et al discloses:

- ***regarding claim 1***, inkjet printing apparatus, having a cartridge incorporating an inkjet printhead where nozzles for discharging ink are arranged in a predetermined direction, for performing printing by scanning the carriage with respect to a printing medium in a direction orthogonal to the predetermined direction (Column 1, Lines 50 - 61)
- first and second conveyance means, arranged at the front and rear of an area scanned by the printhead, for conveying printing medium while holding the printing medium (Column 10, Lines 40 – 50)
- nozzle setting means for, when printing medium is held only by one of said conveyance means, setting a nozzle to be used for printing from the nozzles are a distance between a discharge surface of the nozzle and a printing surface of the printing

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medium falls within a predetermined range, in accordance with a position of a printing medium in a printing-medium conveyance direction (Column 11, Lines 13 – 26; Column 12, Lines 16 – 37)

- **regarding claim 2**, wherein said nozzle setting means makes setting so that the nozzles where a distance between the discharge surface and the printing surface of the printing medium falls within a predetermined range are divided in plural times of scanning (Column 13, Lines 1 – 13; Column 25, Lines 9 – 17)

- **regarding claim 3**, wherein during the plural times of scanning, nozzles to be used for printing are changed, instead of conveying the printing medium by said conveyance means (Column 12, Lines 16 – 37)

- **regarding claim 4**, said nozzle setting means makes setting to use nozzles at the rear with respect to the conveyance direction for printing a front-end side of the printing medium, and to use nozzles at the front with respect to the conveyance direction for printing a rear-end side of the printing medium (Column 13, Lines 62 – 68; Column 14, Lines 1 – 5; Column 15, Lines 47 – 50)

- **regarding claim 5**, said nozzle setting means makes setting to use all nozzles when the printing medium is held by both the first and second conveyance means (Column 12, Lines 30 – 37)

- **regarding claim 7**, a determining step of determining whether or not the printing medium is held only by one of the conveyance means based on a position of the printing medium in a printing-medium conveyance direction (Column 12, Lines 16 – 30)

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- a nozzle setting step of, when it is determined that the printing medium is held only by one of the conveyance means, setting a nozzle to be used for printing from the nozzles where a distance between a discharge surface of the nozzle and a printing surface of the printing medium falls within a predetermined range (Column 12, Lines 16 – 37)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki et al (U.S. Pat. 6,527,360) in view of Kim (U.S. Pub. 2004/0080554).

Otsuki et al discloses all of the claimed limitations except for the following:

- ***regarding claim 6***, said nozzle setting means further comprises an association table of a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium

Kim discloses:

- ***regarding claim 6***, said nozzle setting means further comprises an association table of a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium (Paragraph 0013). For the purpose of improving the quality of printing.

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At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of nozzle setting means further comprises an association table of a nozzle to be used and a distance with respect to the printing medium conveyance direction for each type of printing medium as taught by Kim into the device of Otsuki et al. The motivation for doing so would have been to improve the quality of printing.

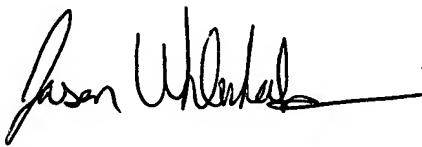
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Uhlenhake whose telephone number is (571) 272-5916. The examiner can normally be reached on Monday - Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSU
December 19, 2005

A handwritten signature in black ink, appearing to read "Jason Uhlenhake", with a long horizontal stroke extending to the right.